COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ADJUSTMENT OF ELECTRIC RATES)
OF THE UNION LIGHT, HEAT AND POWER) CASE NO. 9299
COMPANY)

ORDER

On April 10, 1985, the Union Light, Heat and Power Company ("ULH&P") filed an application with the Commission requesting authority to increase its rates and charges for electric service rendered on and after April 30, 1985. ULH&P included two sets of rates within its notice, Phase I rates and Phase II rates. In the event that the Commission suspended the Phase II rates, ULH&P proposed that it be permitted to implement the Phase I rates, subject to refund, while the Commission conducted an investigation surrounding the reasonableness of the Phase II rates. The proposed Phase II rates would increase ULH&P's annual electric revenues by approximately \$5.3 million, an increase of 4.9 percent. UHL&P cited increased operating costs and fixed-charge requirements and the necessity to provide an adequate return to its security holders as the reasons for the requested rate increase.

On April 29, 1985, the Commission suspended the proposed Phase II rates until September 30, 1985, in order to conduct public hearings and investigations into the reasonableness of the proposed rates, and also issued an Order denying ULH&P's proposal

to implement the interim Phase I rates because of its failure to meet its burden of proving that the interim rates were necessary. A hearing was scheduled for August 5, 1985, tor the purpose of cross-examination of the witnesses of ULH&P and the intervenors. ULH&P was directed to give notice to its customers of the proposed rates and the scheduled hearing pursuant to 807 KAR 5:011, Section 8. Motions to intervene in this matter were filed by the Consumer Protection Division in the Office of the Attorney General ("AG"), Kentucky Industrial Utility Customers ("KIUC"), the City of Covington ("Covington"), and a residential customer, Jean Boles, represented by the Northern Kentucky Legal Aid Society, Inc., and the Office of Kentucky Legal Services ("Legal Aid"). These motions were granted and no other parties formally intervened.

The hearing for the purpose of cross-examination of the witnesses of ULH&P and the intervenors was held in the Commission's offices in Frankfort, Kentucky, on August 5, 1985, with all parties of record represented. Briefs were filed by August 27, 1985, and the information requested during the hearings has been submitted.

This Order addresses the Commission's findings and determinations on issues presented and disclosed in the hearings and investigation of ULH&P's revenue requirements and rate design, and provides rates and charges that will produce an increase in annual revenues of \$3,545,152.

COMMENTARY

ULH&P operates as a public utility providing electric and gas service in Boone, Campbell, Gallatin, Grant and Kenton

counties. ULH&P distributes and sells electricity to approximately 94,300 customers within those counties. ULH&P is a subsidiary of Cincinnati Gas and Electric Company ("CG&E"), from which it purchases wholesale electricity for distribution to its retail customers.

TEST PERIOD

ULH&P proposed and the Commission has accepted the 12-month December 31, 1984. the test period period ending as determining the reasonableness of the proposed rates. In using historic period, the Commission the test has given full consideration to appropriate known and measurable changes.

VALUATION

ULH&P presented the net original cost, capitalization and reproduction cost as the valuation methods in this case. The Commission has given due consideration to these and other elements of value in determining the reasonableness of the proposed rates. Net Original Cost

ULH&P proposed a jurisdictional net investment rate base devoted to electric operations of \$60,085,406. Generally, the proposed rate base was determined in accordance with the Commission's decision in ULH&P's most recent case. However, the proposed exclusion of Construction Work in Progress ("CWIP") from rate base is not consistent with the Commission's established methodology for establishing the value of investment in utility property, properly matched with invested capital, at a specific

Lonneman Testimony, Exhibit No. 5, page 4.

point in time. In establishing the net investment rate base, capitalization and the adjusted level of operating revenues and expenses, the Commission must develop a proper matching of earnings and rate base. This is accomplished by adjusting the for appropriate historical test-year operations known and measurable changes to arrive at a pro forma statement ο£ operations which coincides with the test-year-end rate base and ULH&P has proposed to exclude CWIP from rate capitalization. base, but has not proposed a corresponding adjustment to reduce capitalization and thereby maintain a proper matching of rate base and capitalization. The methodology proposed by ULH&P is improper to the extent that it creates a mismatch. It is the opinion of the Commission that to exclude investment in CWIP from rate base would result in a mismatch of earnings, rate base and capitali-Therefore, the Commission will include jurisdictional CWIP of \$1,212,2372 for purposes of determining test-year-end net investment rate base.

During the course of this proceeding, KIUC raised the issue of the inclusion on the books of ULH&P of transmission lines whose true purpose was to strengthen the entire CG&E network. The Commission has determined that this has occurred.

² Response No. 1, 3rd Request.

Transcript of Evidence ("T.E."), August 5, 1985, pages 168-171.

On September 15, 1983, CG&E filed an application, Case No. 8901, for a Certificate of Convenience and Necessity to construct approximately 3.71 miles of transmission line from its Buffington Substation to an existing East Kentucky Power ("EKP") switching station in Kenton County and to interconnect at that location. The purpose of the new transmission line, as stated in the application and the testimony of Robert P. Wiwi in Case No. 8901, was to strengthen the reliability of the 138 KV systems of both CG&E and EKP in the Northern Kentucky area and to provide an opportunity for economic interchange of power. There was no mention in the application, nor testimony during the hearing, that the new line would be for the sole benefit of ULH&P customers, nor was there any evidence or testimony offered to allocate any portion of the costs and maintenance of the line to ULH&P. Commission, accordingly, issued its Order granting a certificate to CG&E on May 14, 1984.

It is the Commission's opinion that the new line serves the purpose as described in the application, in that it is an integral part of the CG&E transmission network and thereby serves the entire service area of CG&E, as do the other transmission line interconnections between CG&E and adjacent utilities. Therefore, the total construction cost of \$1,099,237 as reflected in Work Order 794-28151 has been excluded from rate base.⁴

Construction projects of this nature should properly be recorded on the books of the generating utility and recovered

Response to Data Requests made during Hearing, Enclosure 6.

proportionately from the several transmission utilities through Federal Energy Regulatory Commission rates. The Commission is seriously concerned that ULH&P recorded on its books the cost of construction applied for by CG&E to benefit the entire CG&E transmission network, and in future rate proceedings will closely examine all plant additions recorded by ULH&P to assure the propriety of including them.

All other elements of the net original cost rate base have been accepted as proposed by ULH&P. Therefore, the Commission finds the appropriate jurisdictional net investment rate base devoted to electric operations to be as follows:

Electric Plant in Service	\$	97,090,552
Construction Work in Progress		1,212,237
Less:		
Buffington Line	•	(1,099,237)
Total Utility Plant	\$	97,203,552
Add:		
Materials and Supplies	\$	114,501
Prepayments		88,654
Cash Working Capital		1,443,664
Subtotal	\$	1,646,819
Deduct:		
Reserve for Depreciation	\$	31,123,262
Accumulated Deferred Taxes		7,298,009
3 Percent Investment Tax Credi		203,988
Subtotal	\$	38,625,259
Net Investment Rate Base	\$	60,225,112
	=	

Capitalization

At the end of the test year, ULH&P had investor-supplied capital in the amount of \$95,715,748; Based upon the determination discussed in the preceding section, this amount has been reduced by \$1,099,237 to exclude investment related to the

⁵ Mosley Testimony, Exhibit No. 3.

Buffington transmission line. In ULH&P's past cases, Commission has generally allocated capital between electric and gas operations to determine the appropriate capital valuation for each type of utility service. Capital allocation by use of the net investment ratio has been the method most frequently employed by the Commission. In the past, ULH&P and the Commission have expressed concern about this method due to the effect of variations in total capital due to fluctuations in the level However, the effect of these volume of gas prepayments. fluctuations has been minimized by using a 12-month average for the calculation of prepayments for total company prepayments wherein gas prepayments comprise the great majority. The Commission is of the opinion that the use of this method is appropriate for rate-making purposes and, therefore. jurisdictional investor-supplied determined ULH&P's devoted to electric operations to be 58.874 percent of total capitalization based on the ratio of electric operations rate base to total company rate base as determined in Appendix B. The resulting investor-supplied capital assigned to Kentucky electric operations is \$55,577,738.

The Commission has increased this \$55,577,738 by \$4,320,733,6 which is the amount of Job Development Investment Tax Credit ("JDIC") applicable to electric operations. The JDIC has been allocated to each component of the capital structure on the basis of the ratio of each component to total capital, excluding

^{6 1984} FERC Form 1, page 264, line 12 + line 14.

JDIC. The Commission is of the opinion that this treatment is entirely consistent with the requirement of the Internal Revenue Service ("IRS") that JDIC receive the same overall return allowed on common equity, debt and preferred stock. Therefore, ULH&P's total capitalization devoted to Kentucky jurisdictional electric operations is \$59,898,471.

Reproduction Cost

ULH&P presented an electric reproduction cost rate base of \$144,604,501.⁷ Therein ULH&P estimated the value of Plant in Service and CWIP in current dollars at the end of the test year. The Commission has considered this valuation method and others as prescribed by KRS 278.290. As in past proceedings, however, the Commission has given primary consideration to the net original cost and capital valuation methods.

REVENUES AND EXPENSES

ULH&P's jurisdictional net operating income from electric operations for the test period was \$5,150,902.8 To reflect and anticipated operating conditions for Kentucky current jurisdictional electric operations, ULH&P proposed several adjustments to revenues and expenses resulting in an adjusted net operating income of \$4,472,030.9 The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following modifications:

Herche Testimony, Exhibit No. 1, page 4.

⁸ Application, Exhibit J-2, page 2.

⁹ Ibid.

Fuel Synchronization

ULH&P proposed a fuel synchronization adjustment whereby the revenues would be increased by \$174,590 and expenses would be increased by \$870,267. ULH&P proposed to annualize the test-period fuel revenues to the Fuel Adjustment Clause ("FAC") charge for the month of December 1984 purchased power cost and, additionally, to annualize the test-period purchased power to reflect the level of fuel cost included in the December 1984 purchased power cost.

The methodology proposed by ULH&P does not reflect the effect of the monthly fluctuation of its FAC revenues and costs, but rather normalizes the fuel revenues and expense in effect at December 31, 1984, as though they were rates in a tariff that had been in effect all year. It An appropriate fuel synchronization adjustment would have to recognize the monthly fluctuation of the FAC revenues and costs. To normalize these revenues and costs to a given month, as proposed by ULH&P, would either overstate or understate the amount of the adjustment. Therefore, the Commission rejects this fuel synchronization proposal.

Donations

ULH&P proposed an adjustment to increase operating expenses by \$26,649¹² to reflect, in its cost of service, the expense for donations made during the test year. Mr. Lonneman stated that

¹⁰ Ibid., page 3.

Lonneman Testimony, page 6; Brief of ULH&P, page 9.

¹² Ibid.

these donations were necessary for ULH&P to function as a good citizen within the area it serves. 13 However, Mr. Lonneman did not present any substantive evidence that these donations benefit ULH&P's customers. The Commission has consistently denied the inclusion of donations as an operating expense for rate-making purposes and finds that ULH&P has presented no evidence in this proceeding to cause a departure from this policy. Therefore, the proposed adjustment has not been included for rate-making purposes.

Institutional Advertising

ULH&P proposed an adjustment to reduce operating expenses by \$12,876¹⁴ to reflect the elimination of institutional advertising as required by 807 KAR 5:016, Section 4; the charges eliminated represented charges to Account No. 930.1 -- General Advertising Expenses.

Account No. 913 -- Advertising Expenses. The Uniform System of Accounts for Class A Electric Utilities provides that this account shall include the cost of expenses incurred in advertising designed to promote or retain the use of utility service. Because advertising expenditures of this nature are normally disallowed for rate-making purposes, the Commission requested copies of the advertisements related to the \$14,717 charged to Account No. 913

¹³ Lonneman Testimony, page 8.

Application, Exhibit 5, J-2, page 3.

during the test year. 15 A review of the advertisements reflected that their purpose was to promote the service areas of ULH&P and CG&E.

807 KAR 5:016, Section 3, provides that only advertising producing a material benefit for the ratepayers (specifically advertising providing information on billing, safety, energy technology, rates, and notices required by the Commission) shall be allowable as a cost to the utility for rate-making purposes. ULH&P has not provided persuasive evidence to meet its burden of proof that these advertisements provide a material benefit for ratepayers. It is the opinion of the Commission that advertisements promoting a utility's service area do not provide a material benefit in the sense intended by 807 KAR 5:016, Section 3. Therefore, operating expenses have been reduced by \$14,717 to eliminate this advertising.

Wages and Salaries

ULH&P proposed adjustments of \$112,839 and \$235,625 to normalize wage and salary increases occurring during the test period, and through May 15, 1985, 16 respectively. The normalization of wage and salary increases occurring during the test year reflected about a 6.85 percent annual increase in labor costs, while the post test-period increases averaged about 4 percent. No intervenor objected to this adjustment and the Commission is of the opinion that, in this instance, the inclusion

¹⁵ Item No. 9, 2nd Request.

Application, Exhibit J-3, page 4.

of such costs is reasonable and appropriate for rate-making purposes. The Commission is concerned, however, about the level of increases granted during the test year in relation to the level of inflation during the last several years. The 1984 average wage increase of 6.85 percent compares with inflation rates of under 4 percent in each of the last 3 years. The Commission notes that 1985 wage increases were more in line with inflation, as measured by the Consumer Price Index, and encourages ULH&P to keep abreast of wage adjustments and renegotatiate wage contracts if necessary to assure that wages and salaries are maintained at reasonable levels.

Interest Synchronization

applicable interest expense to Kentucky ULH&P's jurisdictional electric operations during the test period was \$2.573.932.¹⁷ Historically, for rate-making purposes, the Commission has imputed interest expense on the portion of JDIC assigned to the debt components of the capital structure and treated the interest as a deduction in computing federal income tax expense allowed in the cost of service. Mr. Lonneman, a return analyst in the Rate and Economic Research Department of CG&E and its subsidiaries, expressed concern that this treatment could jeopardize the future availability of JDIC to ULH&P. However, this is unlikely since the IRS has filed a Notice of Proposed Rule-Making contrary to Mr. Lonneman's concern.

Response, Item No. 16, page 38, line 35, 1st Request.

ULH&P is one of several utilities that have disagreed with this rate-making treatment in recent years. One of these, Continental Telephone Company ("Continental"), appealed two cases to the Kentucky Court of Appeals under Docket Nos. 82-CA-2657-MR and 83-CA-431-MR in which one of the issues was the Commission's treatment of JDIC. On April 13, 1984, the Court of Appeals issued contradictory opinions in the two cases and directed that the matter be pursued in the Kentucky Supreme Court. having received contradictory opinions from the Court of Appeals, the Commission reserved this matter in other cases pending a final judicial decision from the Supreme Court. In the other cases, including Case No. 9029. 18 the Commission indicated that, should the final judicial opinion in the case(s) of Continental be adverse to the Commission's position on interest associated with JDIC, then it would, upon receipt of an appropriate application, order a rate adjustment to generate the associated revenues which had been denied.

In its opinion of July 3, 1985, the Supreme Court affirmed the decision of the Commission in regard to JDIC. Therefore, in accordance with past practice, the Commission has applied the applicable cost rates to the JDIC allocated to the debt components of the capital structure allowed herein. The Commission has

Final Order dated October 24, 1984, Case No. 9029, An Adjustment of Gas Rates of the Union Light, Heat and Power Company, pages 20-21.

computed an interest adjustment of \$460,848¹⁹ which results in a reduction to income taxes of \$230,032.²⁰

Uncollectible Accounts

In this case, as in past cases, ULH&P included in its requested revenue increase a commensurate increase in its provision for uncollectible accounts based upon its test-year provision for uncollectibles viewed as a percentage of total The test-year provision for uncollectibles, as a percentage of total revenues, equaled 1.08 percent. However, the average for the 5 years preceding the test year is .82, while for the 3 most recent calendar years, including the test year, the average is .92.²¹ In past ULH&P cases, when the test-year percentage of uncollectibles was abnormally high and unrepresentative, the Commission has employed a historical average for The Commission, upon comparison rate-making purposes. test-year uncollectibles with historical results, is of the opinion that this treatment should again be implemented in this proceeding. In comparison with the 5-year average, the 3-year provision for trend in the reflects upward average an

¹⁹ \$30,500,301 Capital Allocated to Debt Cost of Debt .0995 \$ 3,034,780 Adj. Interest Expense 2,573,932 Test Year Interest Expense 460,848 Interest Adjustment 20 \$460,847 Interest Adjustment .49915 Tax Rate \$230,032

Response, Item No. 29, 1st Request.

uncollectibles; it is, therefore, suited for normalizing uncollectibles while at the same time recognizing the upward trend. Therefore, the Commission will determine ULH&P's revenue requirement using .983 as the basis for the increase in uncollectible accounts.

Depreciation

As discussed in a previous section of this Order, the Commission has reduced Net Investment Rate Base by excluding \$1,099,237 from Utility Plant in Service. To reflect the result of this reduction in plant on depreciation expense, the Commission has reduced operating expenses by \$31,877. This adjustment is based on the cost of the Buffington Line and the composite electric transmission depreciation rate of 2.9 percent.²²

Allowance for Funds Used During Construction

During the test year, ULH&P reported the capitalization of $$23,096^{23}$ as an Allowance for Funds Used During Construction ("AFUDC"). ULH&P indicated that \$1,010,338 of its year-end CWIP was eligible for AFUDC treatment. 24

ULH&P had proposed an adjustment whereby CWIP would be excluded from rate base, thereby making an AFUDC offset unnecessary. As previously discussed, this methodology would create a mismatch between rate base and capitalization. The Commission has not accepted the proposed methodology and has made

Herche Testimony, Exhibit No. 1.

Response, Item No. 8, Sheet 28, 1st Request.

Response, Item No. 1, 3rd Request.

an AFUDC offset adjustment consistent with previous ULH&P cases. Based on the overall rate of return found reasonable herein, the Commission has increased ULH&P's net operating income by \$96,224 to reflect pro forma AFUDC of \$119,320²⁵ for rate-making purposes. Change in State Tax Rate

ULH&P did not include in its application an adjustment to recognize the increase in the corporate state income tax rate resulting from House Bill No. 3 of the 1985 Special Session of the Kentucky General Assembly. Subsequently, at the Commission's request, ULH&P filed an amended income tax adjustment and requested that the Commission recognize the new corporate rate and include it in its determinations in this case. For the purposes of determining income tax expense in this proceeding, the Commission has recognized the increase in the state corporate tax rate from 6 percent to 7.5 percent and has determined the new composite State and Federal corporate tax rate of 49.915²⁶ percent.

The Commission, after consideration of all pro forma adjustments and applicable income tax effects, has determined ULH&P's adjusted net operating income to be as follows:

^{\$1,010,338} .1181 5 119.320

²⁶ State Rate Effective Federal Rate ([100-7.25] X 46) 42.665

	Test Year Actual	Adjustments	Test Year Adjusted
Operating Revenues	\$107,801,267	\$960,985	\$108,762,252
Operating Expenses	102,650,365	912,404	103,562,769
AFUDC Offset Net Operating Income	23,096	96,224	119,320
	\$ 5,173,998	\$144,805	\$ 5,318,803

CAPITAL STRUCTURE

James R. Mosley, Assistant Treasurer of CG&E and its subsidiaries, proposed the actual end-of-test year capital structure of ULH&P containing 50.5 percent common equity, 42.7 percent debt and 6.8 percent deferred investment tax credits. 27 He was of the opinion that the difference in risk between ULH&P and CG&E made it inappropriate to use CG&E's consolidated capital structure. 28 In its brief, KIUC recommended that the Commission continue with its prior position and use CG&E's consolidated end-of-test-year capital structure. 29 The Residential Intervenor Boles also recommended using CG&E's consolidated Jean end-of-test-year capital structure. 30

In ULH&P's last rate case, Case No. 9029, Mr. Mosley proposed CG&E's consolidated end-of-test-year capital structure. 31 The Commission found that capital structure to be reasonable, despite the difference in risk between ULH&P and CG&E. ULH&P's

ULH&P Exhibit No. 3, page 1.

²⁸ Mosley Testimony, page 3.

²⁹ Brief of KIUC, page 4.

Brief of Residential Intervenor Jean Boles, page 2.

³¹ Mosley Testimony, Case No. 9029, page i.

actual capital structure is very conservative with a large common equity ratio. It has not issued long-term debt since December 15, 1981. 32 In Kentucky Power's last rate case (General Adjustment in Electric Rates of Kentucky Power Company, Case No. 9061), the Commission approved a capital structure containing 38.14 percent common equity. 33 In LG&E's last rate case (General Adjustment in Electric and Gas Rates of Louisville Gas and Electric Company, Case No. 8924), the Commission approved a capital structure containing 40.13 percent common equity. 34 Kentucky Power is similar to ULH&P because it is a wholly-owned subsidiary while LG&E is similar because it is a combination gas and electric utility. Given the risk of ULH&P, the Commission is not convinced that a capital structure containing 50.5 percent common equity is appropriate. CG&E's consolidated capital structure contains a more reasonable percentage of common equity, and ULH&P is a wholly-owned subsidiary of CG&E. Therefore, the Commission is of the opinion that a capital structure containing 50.92 percent debt, 11.8 percent preferred stock and 37.28 percent common equity This is CG&E's consolidated end-of-test-year is reasonable. capital structure.

³² Item 2a, Sheet 2, 1st Request.

Final Order dated December 4, 1984, Case No. 9061, page 26.

³⁴ Final Order dated May 16, 1984, Case No. 8924, page 6.

RATE OF RETURN

Cost of Debt

Mr. Mosley proposed a 9.2 percent cost of debt based on ULH&P's end-of-test-year embedded cost of debt. 35 He did not recommend a cost for preferred stock because ULH&P's capital structure does not contain any preferred stock. However, CG&E's consolidated capital structure is being used to calculate the weighted average cost of capital for ULH&P. Therefore, the Commission is of the opinion that a 9.95 percent cost of debt is This is CG&E's end-of-test-year embedded cost of appropriate. debt. The Commission is also of the opinion that CG&E's 8.98 percent embedded cost of preferred stock is reasonable. Both of these costs will be applied to CG&E's consolidated end-of-testyear capital structure.

Cost of Equity

Mr. Mosley recommended a cost of common equity for ULH&P in the range of 16 to 16.5 percent.³⁶ He performed a discounted cash flow ("DCF") analysis on a group of 16 publicly traded utilities with risk comparable to ULH&P. Mr. Mosley included a 5 percent flotation cost adjustment in his DCF determined return on equity.³⁷ For the growth component of the DCF formula, Mr. Mosley

³⁵ ULH&P Exhibit No. 3, page 2.

Mosley Testimony, page 1.

³⁷ Ibid., page 13.

utilized <u>Value Line's</u> projected 5-year growth in dividends for each company in his composite.³⁸

In its brief, the AG recommended a return on equity in the range of 13 to 14 percent, if CG&E's capital structure was utilized. The Residential Intervenor Jean Boles also recommended a 14 percent return on equity for ULH&P. 40

The Commission has certain reservations regarding Mr. Mosley's testimony. In his DCF analysis, Mr. Mosley used a composite 12-month average stock price of \$24.12. At the time of the hearing, the composite price had risen to \$28.00.41 that was an average spot price, it indicates that stock prices are generally moving upward and that Mr. Mosley's base dividend yield may be overstated. Mr. Mosley used a 5.63 percent composite Value Line dividend growth rate in his DCF calculation. At the time of hearing, however, the current average Value Line dividend growth rate for his composite was 4.8 percent. 42 The more current data that a lower dividend growth rate is appropriate. indicate Finally, the Commission is not convinced that a 5 percent flotation cost adjustment is appropriate when determining the cost of equity for ULH&P. ULH&P is a wholly owned subsidiary of CG&E and does not sell common stock publicly. Including a flotation

³⁸ Ibid., page 14.

³⁹ Brief of AG, page 2.

Brief of Residential Intervenor Jean Boles, page 3.

⁴¹ T.E., August 5, 1985, page 72.

⁴² Ibid.

cost adjustment in ULH&P's cost of equity would compensate the company for a cost that has not been incurred and would tend to overstate the required return on equity.

The Commission has taken into consideration the higher risk associated with ULH&P's relationship to CG&E. This additional risk might require a somewhat higher return than is indicated by simply adding together a more current dividend yield and growth rate. On the other hand, capital costs have been generally Therefore, after considering all of the evidence, declinina. including current economic conditions, the Commission is of the opinion that a rate of return on common equity in the range of 14.75 to 15.75 percent is fair, just and reasonable. A return on equity in this range will not only allow ULH&P to attract capital at reasonable costs to insure continued service and provide for necessary expansion to meet future requirements, but also will result in the lowest possible cost to the ratepayer. Within this range, a return on equity of 15.25 percent will best meet the above objectives.

Rate of Return Summary

Applying rates of 9.95 percent for debt, 8.98 percent for preferred stock and 15.25 percent for common equity to the capital structure approved herein produces an overall cost of capital of 11.81 percent. The additional revenue granted herein will provide a rate of return on net investment of 11.75 percent. The Commission finds this overall cost of capital to be fair, just and reasonable.

REVENUE REQUIREMENTS

The Commission has determined that ULH&P needs additional annual operating income of \$1,756,034 to produce an overall rate of return of 11.81 percent based on the adjusted historical test year. After the provision for taxes and increased uncollectibles, there is an overall revenue deficiency of \$3,544,720 which is the amount of additional revenue granted herein. The net operating income required to allow ULH&P the opportunity to pay its operating expenses and fixed costs and have a reasonable amount for equity growth is \$7,074,837. To achieve this level of operating income, ULH&P is entitled to increase its annual revenues as follows:

Reasonable Net Operating Income	\$7,074,837
Adjusted Net Operating Income	5,318,803
Net Operating Income Deficiency	1,756,034
Additional Revenues Required	3,545,152

The additional revenue granted herein will provide a rate of return on the net investment rate base of 11.75 percent and an overall return on total capitalization of 11.81 percent.

The rates and charges in Appendix A are designed to produce gross operating revenues, based on the adjusted test year, of \$112,566,200.

COST OF SERVICE

ULH&P filed a fully allocated embedded cost-of-service study to support its proposed distribution of revenue increase to the various customer classes. Peter H. VanCuren, Assistant Manager of the Rate and Economic Research Department of CG&E, sponsored the cost-of-service study. In the study Mr. VanCuren

allocated all production and demand-related costs to the customer classes based upon their average coincident peak for the 12 months of 1984; distribution demand-related costs were allocated on each class's non-coincident peak; and energy costs were allocated based on the kilowatt-hour usage by each class. The customer classes used in the study were the following: Residential Service ("RS"), Transmission Service ("TS"), Distribution Service ("DS"), Lighting and Other. the results of the study indicated that there was significant variation regarding the contribution each class made to the overall company rate of return of 11.9 percent. The class rates of return were as follows: 3.5 percent for RS, 31.6 percent for DS, 54.1 percent for TS, 16.7 percent for lighting, and 26.0 percent for other. 43

Mr. VanCuren supplemented his embedded cost-of-service study with a time differentiated version of the study as required by the Commission Order in Case No. 8509, An Adjustment of Electric Rates of the Union Light, Heat and Power Company. Mr. VanCuren's time-differentiated study was prepared by simply modifying the non-time-differentiated study. This modification consisted simply of separating ULH&P's purchased power into onpeak and off-peak components and then allocating these components to the various rate classes. The resulting rates of return by class were very similar to those in the non-time-differentiated study. 44

VanCuren Testimony, Exhibit No. 9, page 3 of 32.

¹bid., Exhibit 10, page 5 of 8.

During cross-examination, Donald I. Marshall, Manager of the Rate and Economic Research Department of CG&E, indicated that there had been recent discussions among CG&E staff to develop a "cost of service study based on a consolidated methodology wherein CG&E would, in fact, allocate plant" to ULH&P. Such a consolidated approach would better reflect the actual cost that ULH&P caused CG&E to incur. The Commission encourages ULH&P and CG&E to continue their efforts to develop a consolidated approach for their cost-of-service studies. Accordingly, ULH&P should in its next rate case report to the Commission about its progress in developing a consolidated study.

The Commission has in previous electric rate case Orders expressed its concern about relying on a coincident peak cost-of-service study, such as those used by ULH&P, for rate design or revenue allocation purposes. In this case, however, the variation in the resulting class rates of return is so great that basic conclusions drawn from the studies would not likely be altered if alternative cost-of-service studies were prepared. Therefore, the Commission finds that for this case the studies filed by ULH&P are reasonable to use as the basis for the allocation of revenue to the customer classes.

REVENUE ALLOCATION

Mr. Marshall was responsible for allocating the proposed increase in revenues among the customer classes. He proposed that the revenue increase be allocated to the classes by "applying a

⁴⁵ T.E., August 5, 1985, page 172.

4.2 percent increase to the current revenue for each tariff with the exception of Rate RS which was increased by 5.95 percent." 46 The cost-of-service studies presented in this case support Mr. Marshall's position that an additional proportion of the increased revenue should be allocated to the RS class. The Commission finds the revenue allocation proposed by ULH&P to be reasonable and, therefore, the increased revenues allowed in this case should be allocated in similar proportions to those proposed by ULH&P.

RATE DESIGN

ULHEP proposed a summer flat rate design and a winter declining block rate design to replace the current summer and winter declining block rate design. As ULHEP is a summer peaking utility, the Commission agrees with this rate design concept.

The proposed change of the late payment charge to an amount equal to 1.5 percent of the unpaid balance of a bill not paid when due and payable is a new concept of this charge for a utility in Kentucky. In ULH&P's proposed change, this would be a decrease of \$233,885 in the Forfeited Discounts Account, which would result in all the customers of ULH&P absorbing this amount.

In previous instances, the utilities in Kentucky have contended that whenever possible the individual who is responsible for the infraction of the company rules should absorb the cost.

The Commission agrees that the responsible persons should absorb that cost. Therefore, the Commission rejects ULH&P's proposed late payment charge.

Marshall Testimony, page 6.

ULH&P proposed various new lighting services and charges to its street lighting ("SL") tariff. ULH&P offered little support for approval of these charges. Therefore, the Commission will reject the part of the SL tariff which is new and where no customers are currently using this service. The Commission rejects this part of the SL tariff without prejudice and requests that ULH&P file an application for the SL tariff with the supporting documentation for the new service and charges.

TIME-OF-DAY RATES

Presently, ULH&P is in the midst of a time-of-day ("TOD") rate design experiment. These rates apply to certain large commercial and industrial customers. ULH&P has proposed in this case to pass through to the TOD customers the rate increases approved for the other commercial and industrial customers which are served under the DS and TS tariffs. ULH&P also proposed to reduce the on-peak period in the TOD tariffs.

The Commission finds that the increases approved for the DS and TS tariffs should be passed through to the customers served on the DS-TOD and TS-TOD tariffs in accordance with the methodology as presented in response to Item No. 34 of the Second Commission Request for data. ULH&P should file the revised DS-TOD and TS-TOD tariffs with the supporting workpapers within 20 days from the issuance of this Order. Further the Commission finds the proposed reduction in the on-peak period in the DS-TOD and TS-TOD tariffs is reasonable.

MARGINAL COST OF SERVICE

Pursuant to the Order in Administrative Case No. 203, Rate-Making Standards Identified in the Public Utility Regulatory Policies Act of 1978, ULH&P filed a marginal cost-of-service study in this case. Allan P. Haskell, Director of Generation Planning for CG&E, sponsored the study. To develop marginal costs, Mr. Haskell used the computer program entitled MARGINALCOST. program, the marginal cost of generation is found by assuming that the in-service dates of unbuilt generating units can be moved forward or backward in time to meet changes in demand. It was assumed that the unbuilt capacity was a 75 megawatt combustion The marginal energy cost is determined by the company's turbine. fuel budget models and then input to the MARGINALCOST program. Marginal transmission and distribution costs are calculated by using an historical regression statistical technique.

In Administrative Case No. 203, the Commission ordered that marginal cost studies be filed in rate cases because it believed marginal costs were a valuable input to the rate design issues facing the companies. According to Mr. Haskell, ULH&P has not used the study for any rate design matters and further he indicated that the study would likely not have been performed if the Commission had not requested it. 47 Yet in this case, there are several issues where the results of the marginal cost study provide some useful guidance. For instance, the marginal costs are relevant to the interruptible tariff, the TOD tariffs, and the

⁴⁷ T.E., August 5, 1985, page 155.

decision to flatten out the residential tariffs. The Commission has reviewed these issues in light of the marginal cost and the Commission fully expects to have these and other issues related to marginal cost before it for some time to come.

The Commission finds that the marginal cost information provided by ULH&P was useful. Further, the methodology used by ULH&P to develop the marginal costs was reasonable and generally well documented, although the analysis used to determine marginal energy costs could be better documented. Further, the Commission does not require that a marginal cost study be filed in the next rate case except to the extent it may be necessary for supporting other information to be filed.

COGENERATION AND SMALL POWER PRODUCTION TARIFFS

Pursuant to the Order in Case No. 8566, Setting Rates and Terms and Conditions of Purchase of Electric Power for Small Power Producers and Cogenerators by Regulated Electric Utilities, ULH&P filed in this case separate tariff sheets for qualifying facilities ("QF") with capacity of 100 kilowatts or less and QFs with capacity over 100 kilowatts. In the Order in Case No. 8566, the Commission required ULH&P to file a capacity purchase rate and also to provide support for the deduction from avoided cost of a fixed percentage for administrative cost. 48

Mr. Haskell of ULH&P provided testimony which demonstrated the existence of an avoided capacity cost. His approach to deriving this figure involved the use of a computer model called

⁴⁸ Case No. 8566, Order entered June 28, 1984, pages 17 and 28.

the Electric Generation Expansion Analysis System ("EGEAS"). The methodology underlying the EGEAS model is to calculate the long run marginal cost associated with a given size QF by comparing the company's current optimum base case generation expansion plan and an optimum expansion plan which includes the QF. One of the key aspects of this approach is that the particular features of a QF arrangement can be incorporated. That is, the specific operating characteristics of the OF, the duration of the contract and the size of the QF are given explicit consideration in this approach. For illustrative purposes, Mr. Haskell assumed a 100 megawatt QF with 85 percent availability and a 10-year contract. The result of the computer modeling effort was an avoided capacity cost of 1.157 cents per kilowatt-hour. This value was then reduced for a 5 percent administrative charge to arrive at a capacity purchase rate of 1.099 cents per kilowatt-hour. Mr. Haskell emphasized during cross-examination that the methodology he was proposing precluded the possibility of providing exact energy and capacity purchase rates for a tariff because the rates were dependent upon associated with particular OF the specific features arrangement.49 This problem was highlighted during crossexamination when the avoided cost values derived by Mr. Haskell were compared to the proposed cogeneration and small power production tariffs. 50

⁴⁹ T.E., August 5, 1985, page 157.

^{50 &}lt;u>Ibid.</u>, pages 159-161.

The Commission agrees with the approach proposed by ULH&P to develop the avoided cost information based on the specific QF arrangement under consideration. However, there is a crucial need to have a tariff that explains this approach to potential QFs. Also the tariff needs to provide some possible range of purchase rates for energy and capacity. This information on the ULH&P approach and the range of rates is a crucial element of the It will allow potential QFs to perform rough calculations to determine whether it is cost effective to even proceed to meet with ULH&P personnel regarding cogeneration and small power instance, the Commission receives regular production. For requests from OFs, marketers of cogeneration and small power production equipment, and consultants for information on energy and capacity purchase rates.

the Commission finds that the Therefore, current cogeneration and small power production tariffs for 100 kilowatts or less and greater than 100 kilowatts do not reflect what the Commission believes to be a reasonable approach as proposed by ULH&P for dealing with QFs. The Commission rejects the proposed tariffs as filed in this case and finds that ULH&P should revise its tariffs to explain the new approach. ULH&P should file the revised tariffs within 30 days of the date of this Order. there are presently no customers selling power to ULH&P under the cogeneration and small power production tariffs, ULH&P at its discretion may choose to meet with the Commission staff to make certain that the concerns expressed in this Order are addressed in the revised tariff.

Further, the Commission finds that ULH&P did not meet its burden of proof to demonstrate that a 5 percent reduction in avoided costs is a reasonable means to recover the administrative costs associated with dealing with QFs. ULHGP filed no support for the 5 percent reduction. In response to a Commission data request some accounting information was provided. 51 However, the response recognized that the costs could not be associated with any particular QF customer. The Commission recognizes there are costs associated with dealing with OFs. To include this cost as a 5 percent reduction on every kilowatt and kilowatt-hour produced by QFs, however, is a significant cost to impose on QFs and will likely inhibit the development of cogeneration and small power Therefore, the Commission finds the 5 percent production. reduction in avoided capacity and energy costs is arbitrary and unreasonable and that ULH&P should not continue reducing the avoided energy and capacity cost in determining the energy and capacity purchase rates for cogeneration and small power production.

INTERRUPTIBLE RATES

In Administrative Case No. 203 the Commission required each of the investor-owned utilities in Kentucky to file interruptible tariffs. As stated on page 39 of the final Order in Administrative Case No. 203:

Response, Item No. 30, 2nd Request.

The Commission finds it appropriate to implement The Commission the interruptible rate standard. believes that implementation of the standard will promote the purposes of PURPA. The Commission also believes that it is not sufficient for a company to state its willingness to negotiate special contracts for interruptible service. The equity objective can be better promoted by requiring each utility to file an interruptible tariff with this Commission in its next rate case. This tariff would serve as the starting point in negotiating a special contract, and deviations from the filed tariff would have to Application could be be justified by cost data. made to the Commission for resolution of substantive issues upon which the company and customer could not agree.

The Commission is still of the opinion that this is a reasonable approach to the implementation of interruptible rates. Further the Commission believes that interruptible rates can be an important ingredient in an overall load management strategy.

In this case, Mr. Marshall of ULH&P testified about proposed revisions in the interruptible tariff. There were two primary changes in the proposed tariff. First, the demand credits per kilowatt of interruptible load were reduced by nearly half from the present tariff. For instance, the demand credit for a maximum of 675 annual hours of interruption in the present tariff is \$2.38 per kilowatt and is reduced to \$1.25 in the proposed tariff. The reason for the reduction is that in the derivation of the credit for the proposed tariff the cost of economy energy and the weighting for this cost has increased significantly. Second, the frequency of interruption under the proposed tariff would increase significantly.

Currently, Newport Steel Corporation is the only ULH&P customer which uses the Interuptible Service Rider ("Rider IS").

Newport Steel Corporation is a member of KIUC. An alternative revision in the interruptible tariff was presented in this case by Randall J. Falkenberg, Vice President with the consulting firm of Kennedy and Associates, witness for KIUC. Mr. interruptible credit based on four different developed an Those approaches were avoided costs, embedded cost approaches. considerations, ULH&P's wholesale rate with CG&E and ULH&P's rate differential between cn-peak and off-peak service. Mr. Falkenberg also suggested a provision for the Rider IS tariff to enable an interruptible customer to opt to continue purchasing power during a period of interruption but the customer would reimburse ULH&P for the actual additional cost incurred plus 3 mills per kilowatthour. The demand credit per kilowatt of interruptible load under Mr. Falkenberg's approach ranged from \$2.33 per kilowatt for 50 maximum annual hours of interruption to \$9.10 per kilowatt for 650 hours.

The Commission has concerns with both revisions presented in this case. The revisions presented by ULH&P raise concern for two reasons. First, the methodology used to calculate the demand credit does not consider any avoided capacity cost. Although Mr. Marshall during cross-examination indicated there would be no avoided capacity cost⁵² for a 15 megawatt load, which is Newport Steel's interruptible load, this assertion is not consistent with the results from the marginal cost study and the avoided cost calculations for the cogeneration analysis. Second, the inclusion

T.E., August 5, 1985, pages 197-198.

resulted in a significant revision in the credit and would likely result in considerable variation in the credit over time. These fluctuations will defeat one of the purposes of the interruptible tariff, which is to help diminish the need for additional capacity in the future. Since this methodology can result in such wide variation (in this case a 50 percent decrease) ULH&P will not attract interruptible loads that will be committed to stay on the Rider IS over time and, therefore, the potential benefits of the interruptible load are lost.

The revisions to Rider IS presented by KIUC also raise concern. If the benefit of an interruptible customer comes from the ability to defer the need for additional capacity, then it is reasonable to develop demand credits based on a determination of the avoided cost. Thus the Commission believes the avoided cost approach used by Mr. Falkenberg to determine the demand credit is reasonable. However, as Mr. Falkenberg states, the "reason for offering an interruptible rate and attracting load is that these customers save all of the customers money."53 Yet in his calculation of the demand credit Mr. Falkenberg has allocated all of the savings to the interruptible customer. 54 The Commission finds this allocation of the savings to be unreasonable.

Since the Commission finds the revisions proposed by ULH&P and those presented by KIUC to be unreasonable, it has determined

Falkenberg Testimony, page 5.

⁵⁴ T.E., August 5, 1985, pages 269-270.

that the best solution at this time is to continue with the previously approved Rider IS tariff as found in ULH&P Exhibit No. 14, page 44 of 54, except that it should be amended to include the revised Applicability section and the first sentence under the Terms and Conditions section of the Rider IS tariff as found in ULH&P Exhibit No. 16, page 49 of 67. ULH&P should file the Rider IS tariff as described above within 30 days from the date of this Order.

SUMMARY

The Commission, after examining the evidence of record and being advised, is of the opinion and finds that:

- 1. The rates and charges proposed by ULH&P should be denied.
- 2. The rates and charges in Appendix A are the fair, just and reasonable rates and, along with the rates to be filed within 20 days in the DS-TOD and TS-TOD tariff sheets, are to be charged by ULH&P. The rates for the DS-TOD and TS-TOD tariff are to be calculated as discussed in the previous section of the Order entitled Time-of-Day Rates.
- 3. ULH&P proposed two new tariffs, Rate GS-FL and Rate NSU. The Commission agrees with these tariffs.
- 4. The Cogeneration and Small Power Production Sale and Purchase Tariff 100 kw or Less and the Cogeneration and Small Power Production Sale and Purchase Tariff Greater than 100 kw should be denied. The Tariffs are to be revised and refiled within 30 days as discussed in the previous section of the Order entitled Cogeneration and Small Power Production Tariffs. The

proposed Rider IS tariff should be denied. The Rider IS tariff is to be amended and refiled within 30 days as discussed in the previous section of the Order entitled Interruptible Rates. Prior to refiling of the Rider IS tariff the previously approved Rider IS tariff should remain in effect.

IT IS THEREFORE ORDERED that the rates and charges as proposed by ULH&P be and they hereby are denied.

IT IS FURTHER ORDERED that the rates in Appendix A and the rates to be filed within 20 days, along with the supporting workpapers, in the DS-TOD and TS-TOD tariff as described in the Time-of-Day Rates section of this Order be and they hereby are the fair, just and reasonable rates to be charged by ULH&P for service rendered on and after September 30, 1985.

IT IS FURTHER ORDERED that ULH&P shall file the SL tariff with supporting documentation for the new service and charges.

IT IS FURTHER ORDERED that ULH&P shall include the current policy regarding the amount of time when a bill is due in the proposed late payment charge.

IT IS FURTHER ORDERED that ULH&P shall in its next rate case report to the Commission about its progress in developing a consolidated cost-of-service study.

IT IS FURTHER ORDERED that the Cogeneration and Small Power Production Sale and Purchase Tariff - 100 kw or Less and the Cogeneration and Small Power Production Sale and Purchase Tariff - Greater Than 100 kw be and they hereby are denied. The tariffs shall be revised and refiled within 30 days as discussed in the previous section of the Order entitled Cogeneration and Small

Power Production Tariffs. ULH&P shall not continue reducing the avoided energy and capacity cost in determining the energy and capacity purchase rates for cogeneration and small power production.

IT IS FURTHER ORDERED that the proposed Rider IS tariff be and it hereby is denied. The Rider IS tariff shall be amended and refiled within 30 days as discussed in the previous section of the Order entitled Interruptible Rates. Prior to refiling of the Rider IS tariff the previously approved Rider IS tariff shall remain in effect.

Done at Frankfort, Kentucky, this 3rd day of October, 1985.

PUBLIC SERVICE COMMISSION

Chairman

Vice Chairman

Did not participate
Commissioner

ATTEST:

Secretary

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 9299 DATED OCTOBER 3, 1985.

The following rates and charges are prescribed for the customers in the area served by Union Light, Heat and Power Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the effective date of this Order.

RATE RS* (RESIDENTIAL SERVICE)

Net Monthly Bill	Summer	Winter
Pirst 1,000 Kilowatt Hours	5.904¢ Per KWH	5.904¢ Per KWH
All Kilowatt Hours Over 1,000 Kilowatt Hours	5.904¢ Per KWH	4.414¢ Per KWH

RATE DS* (SERVICE AT DISTRIBUTION VOLTAGE)

Net Monthly Bill

Customer Charge Per Month		
Single Phase Service	\$5.00	
Single and/or Three Phase Service Primary Voltage Service	\$10.00	
(12.5 or 34.5 KV)	\$100.00	
Demand Charge		
First 15 Kilowatts	\$0.00	Per KW
Additional Kilowatts	\$6.11	Per KW
Energy Charge		
First 6,000 KWH	6.25	7¢ Por KWH
Next 300 KWH/KW	3.71	Be Per KWH
Additional KWH		8¢ Per KWH

Terms and Conditions

The initial term of contract shall be for a minimum period of three (3) years for secondary voltage service and five (5) years for primary voltage service terminable thereafter by a minimum notice of either the customer or the Company as follows:

- 1. For secondary voltage service customers, as prescribed by the Company's service regulations.
- For primary voltage service customers with a most recent twelve month average demand of less than 10,000 KVA or greater than 10,000 KVA, written notice of thirty (30) days and twelve (12) months respectively, after receipt of the written notice.

For customers receiving service under the provisions of former Rate C, Optional Rate for churches, as of June 25, 1981, the maximum monthly rate per kilowatt-hour shall not exceed 10.125 cents per kilowatt-hour plus the applicable fuel adjustment charge.

RATE DS-TOD*
(EXPERIMENTAL TIME-OF-DAY RATE FOR SERVICE AT DISTRIBUTION VOLTAGE)

Net Monthly Bill

Computed in accordance with the following charges (kilowatt of demand is abbreviated as KW and kilowatt-hours are abbreviated as KWH):

	Summer	Winter	
Customer Charge Per Month Single Phase Service Single and/or Three	\$5.00	\$5.00	
Phase Service Primary Voltage Service	10.00	10.00	
(12.5 or 34.5 KV)	100.00	100.00	
Demand Charge On Peak KW Off Peak KW	\$8.97 Per KW 1.00 Per KW	\$7.62 Per KW 1.00 Per KW	
Energy Charge All KWH	3.153∉ Per KWH	3.153∉ Per KWH	

Rating Periods

The rating periods applicable to the demand charge shall be as follows:

a. On Peak Period

Summer - 11 AM to 8 PM, Monday through Friday, excluding holidays.

Winter - 9 AM to 2 PM and 5 PM to 9 PM, Monday through Friday, excluding holidays.

b. Off Peak Period

All hours Monday through Friday not included above, plus all day Saturday and Sunday, as well as New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day and Christmas Day on the day nationally designated to be celebrated as such.

RATE TS*
(SERVICE AT TRANSMISSION VOLTAGE)

Net Monthly Bill

Customer Charge Per Month \$500.00

Demand Charge All KVA

\$4.19 Per KVA

Energy Charge First 300 KWH/KVA Additional KWH

3.586¢ Per KWH 3.267¢ Per KWH

Demand

The demand shall be the kilovolt amperes derived from the Company's demand meter for the fifteen-minute period of the customer's greatest use during the month, but not less than the higher of the following:

- a. 85% of the highest monthly kilovolt amperes similarly established during the summer period for the next succeeding eleven (11) months; or
- b. 1,000 kilovolt amperes.

Terms and Conditions

The initial term of contract shall be for a minimum period of five (5) years terminable thereafter by either the customer or the Company as follows:

- Thirty (30) days after receipt of written notice for customers with a most recent twelve (12) month average demand of less than 10,000 KVA.
- Twelve (12) months after receipt of written notice for customers with a most recent twelve (12) months average demand of less than 10,000 KVA.

RATE TS-TOD*

(EXPERIMENTAL TIME-OF-DAY RATE FOR SERVICE AT TRANSMISSION VOLTAGE)

Net Monthly Bill

Computed in accordance with the following charges (kilowatt of demand is abbreviated as KW; kilowatt-hours are abbreviated as KWH):

	Summer	Winter
Customer Charge Per Month	\$500.00	\$500.00
Demand Charge On Peak KW Off Peak KW	\$6.13 Per KW \$1.00 Per KW	•
Energy Charge All KWH	3.153¢ Per	KWH 3.153¢ Per KWH

Rating Periods

The rating periods applicable to the demand charge shall be as follows:

a. On Peak Period

Summer - 11 AM to 8 PM, Monday through Friday, excluding holidays.

Winter - 9 AM to 2PM and 5 PM to 9 PM, Monday through Friday, excluding holidays.

b. Off Peak Period

All hours Monday through Friday not included above, plus all day Saturday and Sunday, as well as New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day and Christmas Day on the day nationally designated to be celebrated as such.

RATE POL* (PRIVATE OUTDOOR LIGHTING SERVICE)

Applicability

Applicable to service for outdoor lighting on private property with Company owned overhead lighting fixtures where facilities of suitable voltage and adequate capacity are adjacent to the premises to be served. Not applicable to service for lighting of dedicated or undedicated public thoroughfares. This rate is not available to new customers effective September 2, 1982.

Type of Service

All equipment will be installed, owned and maintained by the Company on rights-of-way provided by the customer. The Company will perform maintenance only during regularly scheduled working hours and will endeavor to replace burned-out lamps within 48 hours after notification by the customer. The Company does not guarantee continuous lighting and shall not be liable to the customer or anyone else for damage, loss or injury resulting from any interruption in such lighting due to any cause. All lamps will burn from dusk to dawn, approximately 4,160 hours per annum.

Net Monthly Bill

The following monthly charge for each fixture, which includes lamp and luminaire, controlled automatically, mounted on a utility pole, as specified by the Company, with a span of wire not to exceed 120 feet, will be assessed:

	KW/Fixture	Rate/KWH
7,000 Lumen Mercury,		
Open Refractor	0.208	9.375¢
7,000 Lumen Mercury,	0 100	10 041 /
Enclosed Refractor 10,000 Lumen Mercury,	0.190	12.841¢
Enclosed Refractor 21,000 Lumen Mercury	0.271	10.535€
Enclosed Refractor	0.425	8.617¢

The following monthly charges, for existing facilities, will be assessed but this fixture will not be offered to any new customer after May 15, 1973:

	KW/Fixture	Rate/KWH	
2,500 Lumen Mercury, Open Refractor	0.109	15.707¢	
2,500 Lumen Mercury,	0.109	13.707£	
Enclosed Refractor	0.109	21.492¢	

General Conditions

In cases of repeated vandalism, the Company at its option will repair or remove its damaged equipment and the customer shall pay for repairs on a time and material basis, plus overhead charges. If the equipment is removed the customer will be billed for the unexpired term of the contract.

If any Company owned lighting unit is required to be relocated, removed or replaced with another unit of the same or lower lamp wattage, the customer ordering this shall pay the Company the sacrifice value of the unit, plus labor and overhead charges, unless in the judgment of the Company no charges should be made. An estimate of the cost will be submitted for customer approval before work is carried out.

> RATE SP* (SEASONAL SPORTS SERVICE)

Net Monthly Bill

Customer Charge Per Month \$5.00

Energy Charge All Kilowatt Hours

7.683¢ per KWH

RATE EH* (OPTIONAL RATE FOR ELECTRIC SPACE HEATING)

Net Monthly Bill

Energy Charge All Kilowatt Hours 4.686¢ per KWH

RATE URD* (UNDERGROUND STREET LIGHTING)

Applicability

Applicable to service for outdoor lighting in underground residential distribution areas where facilities of suitable voltage and adequate capacity are adjacent to the premises to be served. This rate is not available to new customers effective September 2, 1982.

Type of Service

All equipment will be installed, owned and maintained by the Company on rights-of-way provided by the customer. The Company will perform maintenance only during regularly scheduled working hours and will endeavor to replace burned out lamps within 48 hours after notification by the customer. The Company does not guarantee continuous lighting and shall not be liable to the customer or anyone else for any damage, loss or injury resulting from any interruption in such lighting due to any cause. All lamps will burn from dusk to dawn, approximately 4,160 hours per annum.

Net Monthly Bill

The following monthly charge for each fixture which includes lamp and luminaire, controlled automatically, with an underground service wire not to exceed 35 feet from the service point, will be assessed:

	KW/Fixture	Rate/KWH
7,000 Lumen Mercury, Mounted on a 17-foot		
Plastic Pole	0.208	15.596€
7,000 Lumen Mercury, Mounted on a 17-foot		
Wood Laminated Pole	0.208	15.596€
7,000 Lumen Mercury, Mounted on a 30-foot		·
Wood Pole	0.208	14.437€

General Conditions

In cases of repeated vandalism, the Company at its option will repair or remove its damaged equipment and the customer shall pay for repairs on a time and material basis, plus overhead charges. If the equipment is removed, the customer will be billed for the unexpired term of the contract.

If any Company owned lighting unit is required to be relocated, removed or replaced with another unit of the same or lower lamp wattage, the customer ordering this shall pay the Company the sacrifice value of the unit, plus labor and overhead charges, unless in the judgment of the Company no charges should be made. An estimate of the cost will be submitted for customer approval before work is carried out.

RATE FL* (FLOOD LIGHTING)

Applicability

Applicable to service for outdoor lighting on private property with Company owned overhead lighting fixtures where facilities of suitable voltage and adequate capacity are adjacent to the premises to be served. Not applicable to service for lighting of dedicated or undedicated public thoroughfares. This rate is not available to new customers effective September 2, 1982.

Type of Service

All equipment will be installed, owned and maintained by the Company on rights-of-way provided by the customer. The Company will perform maintenance only during regularly scheduled working hours and will endeavor to replace burned out lamps within 48 hours after notification by the customer. The Company does not guarantee continuous lighting and shall not be liable to the customer or anyone else for any damage, loss or injury resulting from any interruption in such lighting due to any cause. All lamps will burn from dusk to dawn, approximately 4,160 hours per annum.

Net Monthly Bill

The following monthly charge for each fixture, which includes lamp and luminaire, controlled automatically, mounted on a utility pole, as specified by the Company, with a span of wire not to exceed 120 feet will be assessed:

	KW/Fixture	Rate/KWH
21,000 Lumen Mercury	0.460	8.075¢
52,000 Lumen Mercury (35-foot wood pole)	1.102	5.799¢

General Conditions

In cases of repeated vandalism, the Company at its option will repair or remove its damaged equipment and the customer shall pay for repairs on a time and material basis, plus overhead charges. If the equipment is removed, the customer will be billed for the unexpired term of the contract.

If any Company owned lighting unit is required to be relocated, removed or replaced with another unit of the same or lower lamp wattage, the customer ordering this shall pay the Company the sacrifice value of the unit, plus labor and overhead charges, unless in the judgment of the Company no charges should be made. An estimate of the cost will be submitted for customer approval before work is carried out.

RATE NSU*
(STREET LIGHTING SERVICE FOR NON-STANDARD UNITS)

Applicability

Applicable to municipal, county, state and Federal governments, including divisions thereof, for the lighting of public streets and roads with existing Company and Customer owned lighting fixtures. This service is not available for units installed after January 1, 1985.

Type of Service

All equipment owned by the Company will be maintained by the Company. All lamps will burn from dusk to dawn, approximately 4,160 hours per annum. The Company will endeavor to replace burned-out lamps maintained by the Company within 48 hours after notification by the customer. The Company does not guarantee continuous lighting or electric service and shall not be liable to the customer or anyone else for any damage, loss or injury due to any cause.

Net Monthly Bill

The following monthly charge for each unit with lamp and luminaire, controlled automatically, will be assessed.

A. Company Owned

55	,		KW/Unit	Rate/KWH	Cable Span Charge
1.		el Boulevard Units ved Underground			
	a.	2,500 Lumen Incandescent Series	.148	13.650¢	
	þ.	2,500 Lumen Incandescent Multiple	.189	8.650¢	
2.	Fix gla	ophane Decorative Sture on 17 Foot Fi ass Pole Served Und Bound with Direct Bu	ber- er-		
	a.	10,000 Lumen Merc Vapor	eury .292	12.900¢	.650¢

The cable span charge shall be added to the Rate/KWH charge for each increment of secondary wiring beyond the first 25 feet from the pole base.

B. Customer Owned

Lighting System on Bridge Structure with Limited Maintenance, Cleaning and Relamping only by Company

a.	2,500 Lumen		
	Incandescent		
	Series	.092	8.350¢
b.	2,500 Lumen		
	Incandescent		
	Multiple	.148	8.350¢

The charge for energy only will be 2.854 cents per kilowatthour.

Fuel Cost Adjustment

All kilowatt-hours shall be subject to an adjustment per KWH determined in accordance with the "Fuel Cost Adjustment" set forth on Sheet No. 80 of this tariff.

Late Payment Charge

Payment of the net monthly bill must be received in the Company's office within twenty-one (21) days from the date the bill is mailed by the Company. When not so paid, the gross monthly bill, which is the net monthly bill plus 5%, is due and payable.

General Conditions

- 1. If an installed street lighting unit is required to be relocated, removed or replaced with another unit of the same or less rated lamp wattage, the ordering authority shall pay the Company the sacrifice value of the unit, plus labor and overhead charges, unless in the judgment of the Company no charge should be made. An estimate of the cost will be submitted for approval before work is carried out.
- Lamps and refractors, which are maintained by the Company, shall be kept in good operating condition by and at the expense of the Company.

In the case of vandalism, the Company will repair the damaged property and the customer shall pay for such repair on a time and material basis, plus overhead charges, unless in the judgment of the Company no charge should be made. An estimate of the cost will be submitted for approval before work is carried out.

- 3. When a Company owned street lighting unit reaches end of life or becomes obsolete and parts cannot be reasonably obtained, the Company can remove the unit at no expense to the customer after notifying the customer. The customer shall be given the opportunity to arrange for another type lighting unit provided by the Company.
- 4. When a customer owned lighting unit becomes inoperative, the cost of repair or replacement of the unit will be at the customer's expense. The replacement unit shall be an approved Company fixture.
- 5. Limited maintenance by the Company includes only fixture cleaning, relamping and glassware and photo cell replacement.

Service Regulations

The supplying of and billing for service and all conditions applying thereto are subject to the jurisdiction of the Kentucky Public Service Commission and to Company's service regulations currently in effect, as filed with the Kentucky Public Service Commission.

RATE GS-FL* (OPTIONAL UNMETERED GENERAL SERVICE RATE FOR SMALL FIXED LOADS)

Applicability

Applicable to electric service in the Company's entire territory for small fixed, electric load which can be served by a standard service drop from the Company's existing secondary distribution system where it is considered by Company to be impractical to meter such as service locations for bus shelters, telephone booths, navigation lights and beacons and cable television power supplies.

Type of Service

Alternating current 60 Hz, at nominal voltages of 120, 120/240 or 120/208 volts, single phase, unmetered. Service of other characteristics, where available, may be furnished at the option of the Company.

Net Monthly Bill

Computed in accordance with the following charges:

6.170¢ per kilowatt-hour of calculated energy use per month

Minimum: \$2.50 per fixed load location per month

Fuel Cost Adjustment

All kilowatt-hours shall be subject to an adjustment per kilowatt-hour determined in accordance with the "Fuel Cost Adjustment" set forth on Sheet No. 80 of this tariff.

Late Payment Charge

Payment of the net monthly bill must be received in the Company's office within twenty-one (21) days from the date the bill is mailed by the Company. When not so paid, the gross monthly bill, which is the net monthly bill plus 5%, is due and payable.

Service Provisions

- Each separate point of delivery of service shall be considered a fixed load location.
- Only one supply service will be provided to a customer under this schedule as one fixed load location.
- 3. The customer shall furnish switching equipment satisfactory to the Company.

- 4. The calculated energy use per month shall be determined by the Company taking into consideration the size and operating characteristics of the load.
- 5. The customer shall notify the Company in advance of every change in connected load or operating characteristics, and the Company reserves the right to inspect the customer's equipment at any time to verify the actual load. In the event of the customer's failure to notify the Company of any such changes, the Company reserves the right to refuse to serve the fixed load thereafter under this schedule, and shall be entitled to bill the customer retroactively on the basis of the changed load and operating characteristics for the full period such load was connected.

Term of Service

One (1) year, terminable thereafter on thirty (30) days written notice by either customer or Company.

Service Regulations

The supplying of and billing for service and all conditions applying thereto are subject to the jurisdiction of the Kentucky Public Service Commission and to Company's service regulations currently in effect, as filed with the Kentucky Public Service Commission, as provided by law.

RATE SL* (STREET LIGHTING SERVICE)

Net Monthly Bill

The following monthly charge for each lamp with luminaire, controlled automatically, will be assessed:

		Rate/KWH			
		Additional Facilities			
		Existing	Wood	Embedded	
Description	KW/Lum.	<u>Facilities</u>	Pole(a)	Steel Pole	
Overhead Dist. Area:					
Incandescent					
1000 Lumens (b)	.092	5.533¢	-	-	
2500 Lumens (b)	.189	8.304¢	-	-	
Mercury Vapor					
2500 Lumens	.109	13.499€	-	-	
7000 Lumens	.190	8.329¢	13.330¢	-	
10000 Lumens	.271	7.025¢	10.918¢	-	
21000 Lumens	.425	5.610¢	8.008€	-	
Sodium Vapor					
9500 Lumens	.117	15.456¢	_	-	
22000 Lumens	. 246	9.782¢	-	-	
50000 Lumens	.471	7.449¢	9.746¢	-	

			Rate/KWH	Mounted On	-Pole Type	
		30'	28'	27' Steel	27' Steel	Fac.
Description	KW/Lum.	Wood	Aluminum	11 Gauge	3 Gauge	Chg.(f)
Underground Dist.						
Area -						
Residential						
(only):						
Mercury Vapor						
7000 Lumens	.210	12.708¢	15.388¢	26.338¢		
10000 Lumens	.292	10.150¢	11.966¢	19.906€		
21000 Lumens	.460	7.553¢		13.733∉		
Sodium Vapor						
50000 Lumens (c)	.471	9.746¢				
Decorative-Mercury						
Vapor, 7000 Lumens	5					
Town & Country (d)	.208	13.396¢				
Holophane (e)	.210	14.189¢				

- Where a street lighting unit is to be installed on a non-company owned pole on which the Company does not have an existing contract, an additional charge of \$3.15 per pole will be applicable.
- New or replacement units are not offered by the Company. (b)
- Mounted on 40' wood pole. (c)
- Fixture mounted on 17' wood laminated pole. Fixture mounted on 17' fiber glass pole. (d)
- (e)
- For underground lights, \$0.50 per month shall be added to the price per month per street lighting unit for each increment of 25' of secondary wiring beyond the initial 25' from the pole.

Customer Owned, Company Maintained Fixtures

Description	KW/Fix.	Conventional Fi	kture Wood Pole(c)	Decorative
Mercury Vapor		•		
7,000 Lumens	.190 (d)	5.094	10.858	5.858
10,000 Lumens	.271	4.568	8.662	N/A
21,000 Lumens	.425	4.011	6.622	N/A
Sodium Vapor				
9,500 Lumens	.117 (e)	7.451	16.934	9.226
22,000 Lumens	.246	5.131	9.582	N/A
50,000 Lumens	.471	4.142	6.865	N/A

(a) Fixtures for which the total investment and installation costs are borne by the customer. It shall be an approved Company fixture used in overhead or underground distribution areas.

- (b) Rate is based upon energy plus limited maintenance by Company which includes only fixture cleaning, relamping and glassware and photo cell replacement.
- (c) Where a street lighting fixture is to be installed on a non-company owned pole on which the Company does not have a contract, the charge listed under wood pole will apply.
- (d) .208 for Town and Country Decorative Fixture .210 for Holophane Decorative Fixture
- (e) .128 for Holophane Decorative Fixture

Customer Owned and Maintained Units

The rate for energy used for this type street lighting will be 2.814¢ per kilowatt-hour. The monthly kilowatt-hour usage will be mutually agreed upon between the Company and the customer. Where the average monthly usage is less than 150 KWH per point of delivery, the customer shall pay the Company, in addition to the monthly charge, the cost of providing electric service on the basis of time and material plus overhead charges. An estimate of the cost will be submitted for approval before work is carried out.

RATE TL* (TRAFFIC LIGHTING SERVICE)

Net Monthly Bill

Computed in accordance with the following charges:

- Where the Company supplies energy only, all kilowatt-hours shall be billed at 2.91 cents per kilowatt-hour; or
- Where the Company supplies energy and has agreed to provide limited maintenance for traffic signal equipment, all kilowatt-hours shall be billed at 4.498 cents per kilowatt-hour.

General Conditions

- Billing will be based on the calculated kilowatt-hour consumption taking into consideration the size and characteristics of the load.
- 2. Where the average monthly usage is less than 110 KWH per point of delivery, the customer shall pay the company, in addition to the monthly charge, the cost of providing the electric service on the basis of time and material plus overhead charges. An estimate of the cost will be submitted for approval before the work is carried out.

- 3. The location of each point of delivery shall be mutually agreed upon by the Company and the customer. In overhead distribution areas, the point of delivery shall be within 150 feet of existing secondary wiring. In underground distribution areas, the point of delivery shall be at an existing secondary wiring service point.
- 4. If the customer requires a point of delivery which requires the extension, relocation or rearrangement of Company's distribution system, the customer shall pay the Company, in addition to the monthly charge, the cost of such extension, relocation or rearrangement on the basis of time and material plus overhead charges unless, in the the judgment of the company, no payment shall be made. An estimate of the cost will be submitted for approval before work is carried out.

Limited Maintenance

Limited maintenance for traffic signals is defined as cleaning and replacing lamps and repairing connections in wiring which are of a minor nature. Limited maintenance for traffic controllers is defined as cleaning, oiling, adjusting and replacing of contacts, time-setting when requested and minor repairs to defective wiring.

(OUTDOOR LIGHTING SERVICE)

Net Monthly Bill

The following monthly charge for each lamp with luminaire, controlled automatically, mounted on a utility pole, as specified by the Company, with a maximum mast arm of 10 feet for overhead units, will be assessed:

Lighting Served With Overhead	KW/Luminaire	Rate/KWH
Facilities (OH)	KW/ LUMITHATIC	Na ce / KWII
9,500 Lumen High Pressure		
Sodium-Enclosed	0.117	18.762¢
9,500 Lumen High Pressure		
Sodium-Open	0.117	14.451¢
22,000 Lumen High Pressure		
Sodium-Enclosed	0.246	11.404¢
50,000 Lumen High Pressure		
Sodium-Enclosed	0.471	6.877¢

	KW/Luminaire	Rate/KWH
Lighting Served With Underground		
Facilities (URD)		
9,500 Lumen High Pressure		
Sodium-Enclosed	0.117	18.762¢
9,500 Lumen High Pressure		
Sodium-Open	0.117	14.451¢
9,500 Lumen High Pressure		
Sodium-TC 100 R	0.146	17.279¢
22,000 Lumen High Pressure		
Sodium-Enclosed	0.246	11.404¢
Floodlighting(FL)		
22,000 Lumen High Pressure Sodium	0.246	11.104¢
50,000 Lumen High Pressure Sodium	0.476	7.156¢

Additional facilities, if needed, will be billed at the time of installation.

RIDER SES (STANDBY OR EMERGENCY SERVICE)

Applicability

Applicable to electric service where facilities of suitable voltage and adequate capacity are adjacent to the premises to be served, for standby or emergency purposes furnished to a customer with private generating plant under a general service rate available in the area, under contract for a specified kilowatt demand.

A demand meter will be set in all cases.

Net Monthly Bill

The Net Monthly Bill will be computed under the applicable standard rate.

Minimum: The minimum charge will not be less than \$3.25 per kilowatt of contract demand or actual demand established during the calendar year whichever is higher.

RIDER TS (TEMPORARY SERVICE)

Applicability

Applicable to electric service of a temporary nature, where the standard residential or general service rates are effective for the application of this rider, for a period of less than one year and non-recurring, supplied in accordance with provisions of the appropriate rate currently in effect.

RIDER X (LINE EXTENSION POLICY)

Extension Plan

Extensions

When the estimated cost of extending the distribution lines to reach the customer's premises equals or is less than three (3) times the estimated gross annual revenue the Company will make the extension without additional guarantee by the customer over that applicable in the rate, provided the customer establishes credit in a manner satisfactory to the Company.

When the estimated cost of extending the distribution lines to reach the customer's premises exceeds three (3) times the estimated gross annual revenue, the customer may be required to guarantee, for a period of five (5) years, a monthly bill of one (1) percent of the line extension cost for residential service and two (2) percent for non-residential service.

When the terms of service or credit have not been established in a manner satisfactory to the Company, the customer may be required to advance the estimated cost of the line extension in either of the above situations. When such advance is made the Company will refund, at the end of each year, for four (4) years, twenty-five (25) percent of the revenues received in any one year up to twenty-five (25) percent of the advance.

RIDER LM (LOAD MANAGEMENT RIDER)

Off Peak Provision

The "off peak period" for the summer season is defined as the period from 8:00 PM of one day to 11:00 AM of the following day; Friday from 8:00 PM to 11:00 AM of the following Monday; and from 8:00 PM of the day preceding a legal holiday to 11:00 AM of the day following that holiday. The "off peak period" for the winter season is defined as the period 2:00 PM to 5:00 PM and from 9:00 PM of one day to 9:00 PM of the day preceding a legal holiday to 9:00 AM of the day following that holiday. The following are recognized legal holidays as far as load conditions of the Company's system are concerned: New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day. If the foregoing holidays occur on a Sunday, the following Monday is considered a holiday.

The "on peak period" is defined as all hours exclusive of "off peak period" hours set forth in the preceding paragraph.

- I. For customers with an average monthly demand in excess of fifteen (15) kilowatts and not to exceed five hundred (500) kilowatts where electric service is furnished under the provisions of the Company's existing Rate DS, Service at Distribution Voltage:
 - A. For purposes of administration of this rider, the summer season, as stated above, is the period beginning June 1 and ending September 30. The winter season consists of all other days which have not been recognized in the summer season.
- II. For customers who meet the Company's criteria for the installation of a magnetic tape recording device for billing, and where electric service is furnished under the provisions of either Rate DS, Service at Distribution Voltage, or Rate TS, Service at Transmission Voltage:
 - A. For purposes of administration of this rider, the summer season, as stated above, is the period beginning with the meter reading date in the month of May and ending with the meter reading date in the month of September or the period beginning June 1 and ending September 30, at the Company's option. The winter season consists of all other days which have not been recognized in the summer season.

Terms and Conditions

The term of contract for the Off Peak Provision shall be a minimum period of one (1) year.

The Company shall not be required to increase the capability of any service facilities in order to furnish off peak demands. The Company reserves the right, upon 30 days notice to customers affected, to change the time or times during which on peak demands may be established.

The supply and billing for service and all conditions applying thereto, are subject to the jurisdiction of the Kentucky Public Service Commission, and to Company's Service Regulations currently in effect, as filed with the Kentucky Public Service Commission.

RATE UDP-R* (UNDERGROUND RESIDENTIAL DISTRIBUTION POLICY)

Applicability

Applicable to the electric service of: 1. single family houses in increments of ten (10) or more contiguous lots with a maximum lot width of one hundred twenty (120) feet; or 2. multi-family dwellings in buildings containing five (5) or more individually metered family units. Rate UDP-R is available throughout the service area of the Company in those situations where the Company extends its distribution lines using pad-mounted transformers to serve new developments.

RATE UDP-G*
(GENERAL UNDERGROUND DISTRIBUTION POLICY)

Applicability

Applicable to electric service of: 1. single family houses or multi-family dwellings that do not qualify under the Applicability of the Undergound Residential Distribution Policy; 2. commercial and industrial customers; or 3. special situations. Rate UDP-G is available throughout the service area of the Company in those situations where the Company extends its distribution lines to serve new developments not covered by the Underground Residential Distribution Policy.

APPENDIX B

APPENDIX TO AN ORDER OF THE PUBLIC SERVICE COMMISSION IN CASE NO. 9299, DATED OCTOBER 3, 1985

The net investment rate base of Union Light, Heat and Power Company's combined and electric operations at December 31, 1984, is as follows:

	Company	Electric
Plant in Service	\$155,704,846	\$ 97,090,552
Construction Work in Progress	1,941,953	1,212,237
Cash Working Capital(*)	2,598,545	1,400,089
Materials and Supplies	123,723	114,501
Prepayments(**)	6,278,674	88,654
Subtotal	\$166,647,741	\$ 99,906,033
Less:		
Accumulated Provision for Depreciation	\$ 51,075,766	\$ 31,123,262
Customer Advances for Construction	862,060	-0-
Accumulated Deferred Taxes	10,992,428	7,298,009
3 Percent Investment Tax Credits	397,714	203,988
Buffington Line	1,099,237	1,099,237
Subtotal	\$ 64,427,205	\$ 39,724,496
Net Investment Rate Base	\$102,220,536	\$ 60,181,537

Ratio of Kentucky jurisdictional electric operations to total operations: 58.874 percent.

- (*) Cash working capital was determined by taking 1/8 of actual operation and maintenance expenses less energy charges for the test period.
- (**) For purposes of determining prepayments for the total company, a 12-month average was used; for the electric operations, a 13-month average, as proposed by ULH&P, was used.